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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GODDARD, BRIAN D

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,944

Applicant(s)

BAE, DONG-HOON

Examiner

Brian Goddard

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claims 2 and 9 are objected to because of the following informalities:

The features included in parentheses are ignored as it is unclear whether these features are intended as actual claim limitations or not. Therefore, the phrases "features common to counterclockwise-adjacent contents" and "features common to clockwise-adjacent contents" in the ninth & tenth lines of claim 2, and the ninth & tenth lines of claim 9, are given no weight during examination. Should applicant wish to include these as actual claim limitations, the parentheses must be removed and the grammar adjusted appropriately. Otherwise, the phrases must be removed from the claims altogether.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Referring to claim 1, a skilled artisan would not be enabled to make and/or use the claimed circular index structure wherein "physical contents" move "to corresponding contents according to the user's selection of the contents" as recited in the final lines of the claim. It is unclear how physical contents can move (or be moved) "to corresponding contents" as apparently claimed. The specification provides no clarification on this matter. This limitation ("moving to corresponding contents according to the user's selection of the contents") seems to be a method step that is inserted in improper grammatical format at the end of the claim. A system is claimed, however, this limitation is clearly a method step.

Claims 2-7 are each dependent upon claim 1, and are thus not enabled for the same reason as claim 1.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 1, it is unclear what the step of "moving to corresponding contents according to the user's selection of the contents" is intended to further limit. This limitation seems to be a method step that is inserted in improper grammatical format at the end of the claim. A system is claimed, however, this limitation is clearly a method step. This renders the claim indefinite.

Claims 2-7 are each dependent upon claim 1, and are therefore indefinite for the same reason as claim 1.

In the interest of compact prosecution, the examiner interprets this limitation as broadly as reasonably possible to mean that the "physical contents" can be navigated and selected by a user.

Claim 2 recites the limitation "the contents indexes" in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the outside" in the eighth line of the claim. There is insufficient antecedent basis for this limitation in the claim. In particular, it is unclear what "the outside" means, and what it includes or excludes. This renders the claim indefinite.

Claims 9-15 are each dependent upon claim 8, and are therefore indefinite for the same reason as claim 8.

In the interest of compact prosecution, the examiner assumes that "the outside" means a source outside of the contents display system.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,144,968 to Zellweger in view of U.S. Patent No. 5,544,354 to May et al.

Referring to claim 1, Zellweger teaches a contents structure for analyzing information on features of respective contents and arranging the contents in order for a user to easily access the contents as claimed. See Figures 2-8 and the corresponding portions of Zellweger's specification for this disclosure. In particular, Zellweger teaches a contents structure [20, 30 & 40] for analyzing information on features of respective contents [information objects (photographs in example provided)] and arranging the contents in order for a user to easily access the contents, having a hierarchical index structure [20] comprising:

a virtual contents index [20 (keyword hierarchy)] arranged in a hierarchical method [See Figures 2a & 4 and column 3, lines 34-45] for the user's easy access [See Figure 4] after the contents are classified [See Figures 8-9] according to categories [topical keywords]; and

physical contents [objects (e.g. digital photographs)] dependent on a bottom index [LEAF indices 26 (See column 3, lines 43-45 and Figures 4b-4c)] of the virtual contents index, wherein the physical contents can be navigated and selected by the user [See Figures 4-5].

Zellweger does not explicitly disclose a "circular" index structure wherein the virtual contents index is arranged in a "circular" method as claimed. However, Zellweger's hierarchical index structure is navigable in a circular manner as shown in Figure 4. A user can scroll through a level in the hierarchy, and navigate to a higher or lower level to scroll through as well. Furthermore, Figure 4d shows the capability of scrolling through the actual objects in a circular manner. This provides suggestion for arranging Zellweger's hierarchical index in a circular manner as claimed.

May discloses a system and method similar to that of Zellweger, wherein the hierarchical index is arranged in a "circular" method as claimed. See Figure 1 and the corresponding portion of May's specification for this disclosure. In particular, May's multimedia matrix is a circular index structure to a hierarchical indexing scheme.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement May's multimedia matrix in Zellweger's system and organize Zellweger's hierarchy into May's circular index structure to obtain the invention as claimed. One would have been motivated to do so because of Zellweger's suggestion as provided above, and further to provide a more user-friendly interface.

Referring to claim 2, the system and method of Zellweger in view of May as applied to claim 1 above discloses the invention as claimed. See Figures 1-9 and the corresponding portions of Zellweger's specification, as well as Figures 1-2 and the corresponding portions of May's specification, for the details of this disclosure. In particular, the contents index of Zellweger in view of May is "classified into predetermined categories [topical categories (Zellweger, Fig. 4)] according to

information extracted by the user's searching process or a keyword method [Zellweger: keyword hierarchy (See Figs. 2-4 & 8-9)], and the contents item [keyword] that best exemplifies the features of a category is set as a representative contents index [any non-LEAF node in the hierarchy (e.g. Pontiac, Saturn, Star Chief Series, Torpedo Series)] and is arranged in a circular method [May: Fig. 1 (See combination above)], and representative contents indexes form top contents indexes [non-LEAF nodes branch down further into the hierarchy, and are therefore top contents indexes], and the virtual contents index is connected to at least one top contents index [Zellweger: See Figs. 2-4], and the contents that have the representative features found through a comparison analysis of category representative features, first comparison features and second comparison features according to the category features are connected to a higher level index [definition of a hierarchy (See Zellweger Figs. 8-9)], and indexes of remaining virtual contents [LEAF nodes] are located between the representative contents indexes [Zellweger: Figs. 4b-4c] according to weighting values [KID & object_ptr (Zellweger: Figs. 8-9)]" as claimed.

Referring to claim 3, the system and method of Zellweger in view of May as applied to claim 1 above discloses the invention as claimed. See Figures 1-9 and the corresponding portions of Zellweger's specification, as well as Figures 1-2 and the corresponding portions of May's specification, for the details of this disclosure. In particular, Zellweger in view of May teaches the structure of claim 1, as above, "wherein the categories are provided on the indexes according to statistical data by types [Zellweger: types of media (e.g. photographs, film type) & May: See Fig. 1D], keywords

[Zellweger: See Figs. 2-4], viewing patterns [May: Column 6, lines 44-67] and databases analyzed by the contents and reference data [Zellweger: Figs. 8-9]" as claimed.

Referring to claim 4, the system and method of Zellweger in view of May as applied to claim 1 above discloses the invention as claimed. See Figures 1-9 and the corresponding portions of Zellweger's specification, as well as Figures 1-2 and the corresponding portions of May's specification, for the details of this disclosure. In particular, Zellweger in view of May teaches the structure of claim 1, as above, "wherein movements between the contents are directed from a top contents index to the bottom contents index [Zellweger: right arrow (See Fig. 4)] or from the bottom contents index to the top contents index [Zellweger: left arrow (See Fig. 4)] according to the user's manipulations [Zellweger: Column 4, lines 23-43]" as claimed.

Referring to claims 5 & 6, the system and method of Zellweger in view of May as applied to claim 1 above discloses the invention as claimed. See Figures 1-9 and the corresponding portions of Zellweger's specification, as well as Figures 1-2 and the corresponding portions of May's specification, for the details of this disclosure. In particular, Zellweger in view of May teaches the structure of claim 1, as above, wherein movements between top contents, and movements between the bottom contents, "are directed in a clockwise or counterclockwise direction [May: Column 6, lines 53-56 & Zellweger: Column 4, lines 11-22] between the respective contents indexes in a circle [See combination above] according to the user's manipulations" as claimed.

Referring to claim 7, the system and method of Zellweger in view of May as applied to claim 1 above discloses the invention as claimed. See Figures 1-9 and the corresponding portions of Zellweger's specification, as well as Figures 1-2 and the corresponding portions of May's specification, for the details of this disclosure. In particular, Zellweger in view of May teaches the structure of claim 1, as above, "wherein when a present level of the contents is moved to a higher or a lower level according to the user's manipulation [See discussion regarding claim 4 above], top and bottom index relationships of the present level are reestablished after the movement [Zellweger: Column 4, lines 43-50]" as claimed.

6. Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zellweger in view of May as applied to claim 1 above, and further in view of U.S. Patent No. 6,415,319 to Ambroziak.

Referring to claim 8, Zellweger in view of May discloses a contents display system [Zellweger: Fig. 1] for receiving a plurality of contents [Zellweger: information objects], analyzing information on the contents [Zellweger: Figs. 8-9], storing the contents in a memory as a database [Zellweger: Figs. 1-3], and outputting the stored contents according to a user's access [Zellweger: Figs. 4-5], a contents display system comprising:

a memory [Zellweger: Database of Figs. 2-3];

an interface [Zellweger: Fig. 8] for storing information on analyzed features and information on physical contents for moving to corresponding contents in the memory [See Zellweger: Figs. 8-9]; and

a contents selector [Zellweger: 'integrated menu system' (Column 4, line 6 et seq.)] for extracting the contents corresponding to the information on the physical contents using the feature information stored in the memory according to the user's request, for switching the contents and outputting the contents [See the discussion regarding claim 1 above].

Neither Zellweger nor May explicitly discloses "a contents feature analyzer" for analyzing features of at least one contents unit provided from a source outside of the contents display system as claimed. However, Zellweger's interface of Figs. 8-9 for associating keywords to the contents accomplishes this task indirectly through analysis of the user.

Ambroziak discloses a system and method similar to those of Zellweger and May, further including a concept extractor for extracting conceptual information from a document (content); analyzing the extracted conceptual information; and assimilating the extracted conceptual information into an index. See Figures 1 & 10-14 and the corresponding portions of Ambroziak's specification for this disclosure. In particular, Ambroziak teaches "a contents features analyzer [Index Server 130] for analyzing features [Fig. 10, Steps 1020-1050] of at least one contents unit [web document in the example provided]" provided from a source [network server] outside of the system "and

storing [Fig. 10, Steps 1050-1060] information on the analyzed features and information on physical contents for moving to corresponding contents in the memory" as claimed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Ambroziak's contents features analyzer to the system of Zellweger in view of May in order to automate Zellweger's process of creating the index by automatically extracting keywords from the contents and associating the contents with the keywords in the index. One would have been motivated to do so because of the common desire to automate processes commonly performed by a human user, in order to alleviate Zellweger's users of the need to analyze and index the contents manually through the interface.

Claims 9-14 are rejected on the same basis as claims 2-7 respectively, in light of the basis for claim 8. See the discussions regarding claims 1-8 above for the details of this disclosure.

Referring to claim 15, the system and method of Zellweger in view of May and Ambroziak discloses the invention as claimed. See Figure 4 and the corresponding portion of Zellweger's specification for this disclosure. In particular, Zellweger's (as modified by May and Ambroziak) contents selector comprises:

a top contents selector [interface of Figs. 4a & 4b] for controlling the display of the corresponding contents using the physical contents information when the top contents index [non-LEAF nodes] stored in the memory is selected according to the user's manipulations; and

a bottom contents selector [interface of Figs. 4b & 4c] for controlling the display of the corresponding contents using the physical contents information when the bottom contents index [LEAF nodes] stored in the memory is selected according to the user's manipulations as claimed.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Nos. 5,850,218 to LaJoie et al; 6,421,716 to Eldridge et al; 6,199,098 to Jones et al; and 5,297,253 to Meisel et al. are each considered particularly pertinent to applicant's claimed invention.

The remaining U.S. Patents made of record and not relied upon are considered pertinent to applicant's disclosure, and/or portions of applicant's claimed invention.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goddard whose telephone number is 703-305-7821. The examiner can normally be reached on M-F, 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Art Unit: 2171

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

bdg
May 30, 2003



SAFET METJAHIC
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100